

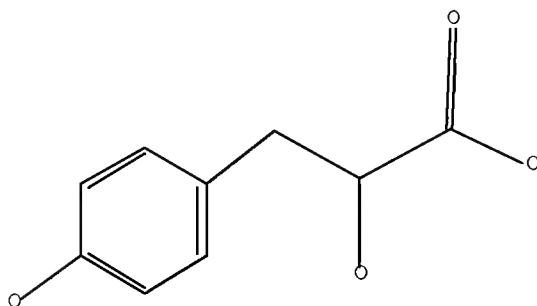
L1 STRUCTURE UPLOADED

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



L2 50 S L1 SSS SAM

L3 12733 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:08:02 ON 28 JUN 2010

L4 1709 S L3/PREP

L5 1011 S L4 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

L6 164 S L4 AND (ASYMMETRIC)

L7 1011 S L4 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

L8 91 S L6 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

L9 1 S US 20070142472/PN

L10 1709 S L3/PREP

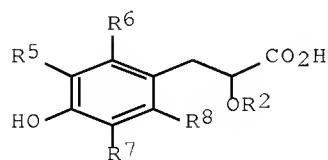
L11 51 S L10 AND HYDROGENATION/IT

L12 34 S L11 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

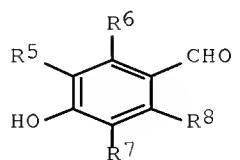
L13 24 S L11 AND (ASYMMETRIC OR ?SELECTIV?)

L14 10 S L13 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)

L14 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
GI



I



II

AB Title compds. (I; R2 = alkyl; R5-R8 = H, substituent) and salts thereof were prepared by reaction of benzaldehydes (II; R1 = protective group; R5-R8 as defined above) with R2OCH2CO2R3 (R3 = hydrocarbyl; R2 as defined above), hydrolysis of the resulting cinnamate esters to give cinnamic acids, asym. hydrogenation, and

O-deprotection. Thus, a mixture of 4-benzyloxybenzaldehyde, Me methoxyacetate, and NaOMe was refluxed 5 h in MeOH to give 80% Me 3-(4-benzyloxyphenyl)-2-methoxyacrylate. This was refluxed 2 h with 1N NaOH in MeOH to give 85% 3-(4-benzyloxyphenyl)-2-methoxyacrylic acid Na salt. The latter was hydrogenated in MeOH over [Ru(p-cymene)[(S)-dm-segphos]]Cl in MeOH at 5 MPa and 60° for 16 h to give Na 3-(4-hydroxyphenyl)-2-methoxypropionate in 20% yield and 92.9% enantiomeric excess.

ACCESSION NUMBER: 2005:490344 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 143:43684  
 TITLE: Process for preparation of optically active 3-(4-hydroxyphenyl)propionic acids by reaction of protected 4-hydroxybenzaldehydes and glycolic acid derivatives to give cinnamates and asymmetric hydrogenation of the latter.  
 INVENTOR(S): Yokozawa, Tohru; Shimizu, Hideo; Fujiwara, Takahiro; Ino, Yasunori  
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan  
 SOURCE: PCT Int. Appl., 95 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005051882 20041126 <--	A1	20050609	WO 2004-JP17998	
CA, CH, GB, GD, KZ, LC, NA, NI, SL, SY, ZM, ZW ZW, AM, DE, DK, PT, RO, ML, MR,	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,			
EP 1687250 20041126 <--	A1	20060809	EP 2004-819490	

R: CH, DE, ES, FR, GB, LI, IE  
 JP 2007512222 T 20070517 JP 2006-520429  
 20041126 <--  
 US 20070142472 A1 20070621 US 2006-578744  
 20060510 <--  
 PRIORITY APPLN. INFO.: JP 2003-398201 A  
 20031127 <-- WO 2004-JP17998 W  
 20041126

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OTHER SOURCE(S): CASREACT 143:43684; MARPAT 143:43684

IT 477982-28-8P 853562-54-6P 853562-55-7P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation);  
 PREP

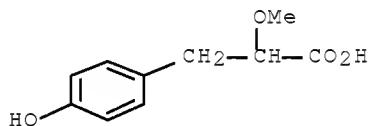
(Preparation)

(optically active; preparation of optically active  
 hydroxyphenylpropionates  
 by reaction of protected hydroxybenzaldehydes and glycolic acid  
 derivs.

to give cinnamates and asym. hydrogenation of the  
 latter)

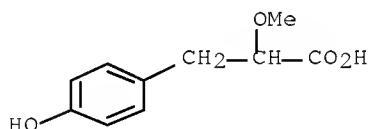
RN 477982-28-8 CAPLUS

CN Benzenepropanoic acid, 4-hydroxy- $\alpha$ -methoxy- (CA INDEX NAME)



RN 853562-54-6 CAPLUS

CN Benzenepropanoic acid, 4-hydroxy- $\alpha$ -methoxy-, sodium salt (1:1)  
 (CA INDEX NAME)



● Na

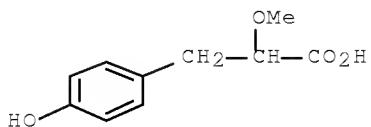
RN 853562-55-7 CAPLUS

CN Benzenepropanoic acid, 4-hydroxy- $\alpha$ -methoxy-, compd. with  
 cyclohexanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

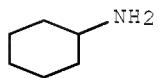
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CMF C10 H12 O4

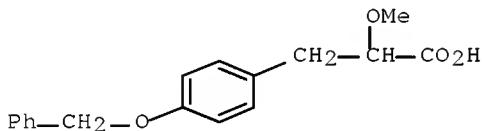


CM 2

CRN 108-91-8  
CMF C6 H13 N

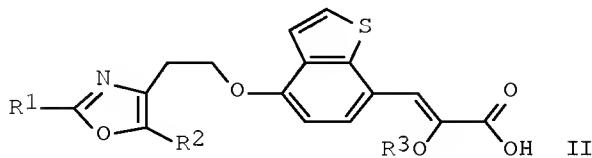
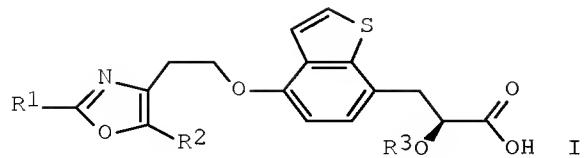


IT 853562-58-0P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of optically active hydroxyphenylpropionates by reaction of  
protected hydroxybenzaldehydes and glycolic acid derivs. to  
give cinnamates and asym. hydrogenation of the latter)  
RN 853562-58-0 CAPLUS  
CN Benzenepropanoic acid,  $\alpha$ -methoxy-4-(phenylmethoxy)-, sodium salt  
(1:1) (CA INDEX NAME)



● Na

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD  
(1 CITINGS)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

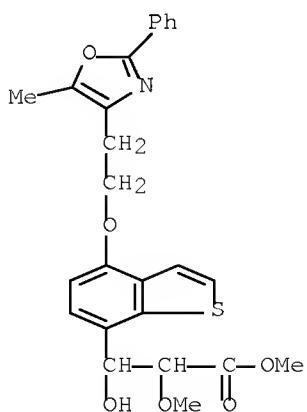


AB The present invention is concerned with a novel process for the preparation of compds. of formula (I) (wherein R1 = aryl or heteroaryl; R2, R3 = lower alkyl) or salts thereof comprising catalytic asym. hydrogenation of a compound of formula (II) in the presence of a catalyst comprising ruthenium or rhodium and a chiral diphosphine ligand or comprising rhodium and a chiral diphosphine ligand. The compds. of formula I and the corresponding salts and/or esters are pharmaceutically active substances. Thus, (Z)-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]-2-propenoic acid Me ester. Thus, a suspension of 6.39 g Me 2-methoxy-2-(triphenylphosphonium)acetate chloride (prepared from Me 2-chloro-2-methoxyacetate and triphenylphosphine), 0.68 g lithium methylate, and 3.89 g 4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophene-7-carboxaldehyde in 40 mL DMF was heated for 23 h at 75°, and cooled to 0° to give, after filtering the formed white crystals, washing with 40 mL methanol, drying at 20° and 1 mbar for 16 h, 3.54 g (73 %) (Z)-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]-2-propenoic acid Me ester (III) (97.5% purity). III (45.81 g) in 920 mL methanol was treated with a solution of 40.15 g KOH in 92 mL H2O and stirred for 90 min at 100° to give the yellowish reaction solution which was cooled to 60°, treated dropwise with 54 mL concentrate HCl within 5 min (pH 3-4), cooled to 0°, and filtered to give 41.66 g (95%) (Z)-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]-2-propenoic acid (IV) (purity >99.9 %). IV (7.0 g), 20 mL CH2Cl2, 10 mL MeOH, 3.21 mL 1 M aqueous NaOH solution, and a solution of 6.51 mg (0.00804 mmol) of Ru(OAc)2((S)-TMBTP) [TMBTP = 4,4'-bis(diphenylphosphino)-2,2',5,5'-tetramethyl-3,3'-dithiophene] in 2 mL MeOH were mixed, rendered homogeneous, and treated with 18 mL MeOH to give a suspension which was autoclaved at 40° and 30 bar H for 6 h to give 7.27 g (S)-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid (97.1% purity, 93% enantiomeric purity).

ACCESSION NUMBER: 2005:284199 CAPLUS Full-text  
 DOCUMENT NUMBER: 142:355259  
 TITLE: Process for the production of chiral propionic  
 acid  
 derivatives  
 INVENTOR(S): Puentener, Kurt; Scalzone, Michelangelo  
 PATENT ASSIGNEE(S): Hoffman-La Roche Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 17 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

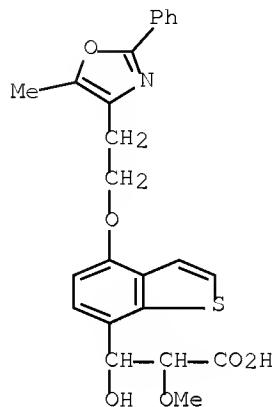
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050070714 20040902 <--	A1	20050331	US 2004-933176	
US 7262303 CA 2539176 20040921 <--	B2 A1	20070828 20050407	CA 2004-2539176	
CA 2539176 WO 2005030764 20040921 <--	C A1	20100105 20050407	WO 2004-EP10568	
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EP 1670792 20040921 <--	A1	20060621	EP 2004-765444	
EP 1670792 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,	B1	20071219		
CN 1860115 20040921 <--	A	20061108	CN 2004-80028176	
JP 2007506800 20040921 <--	T	20070322	JP 2006-530000	
AT 381561	T	20080115	AT 2004-765444	

20040921 <--  
 ES 2297463 T3 20080501 ES 2004-765444  
 20040921 <--  
 MX 2006003365 A 20060608 MX 2006-3365  
 20060324 <--  
 KR 2006056405 A 20060524 KR 2006-706097  
 20060329 <--  
 KR 854886 B1 20080828  
 US 20070249842 A1 20071025 US 2007-811071  
 20070608 <--  
 US 7365207 B2 20080429  
 PRIORITY APPLN. INFO.: EP 2003-21700 A  
 20030929 <-- US 2004-933176 A3  
 20040902 WO 2004-EP10568 W  
 20040921  
 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OTHER SOURCE(S): CASREACT 142:355259; MARPAT 142:355259  
 IT 849150-54-5P, 3-Hydroxy-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid methyl ester  
 849150-60-3P, 3-Hydroxy-2-methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of chiral (benzothiophenyl)propionic acid derivative  
 by asym. hydrogenation of  
 (benzothiophenyl)propenoic acid derivative in presence of  
 chiral ruthenium  
 or rhodium phosphine complex)  
 RN 849150-54-5 CAPLUS  
 CN Benzo[b]thiophene-7-propanoic acid,  
 β-hydroxy-α-methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-, methyl ester (CA INDEX NAME)



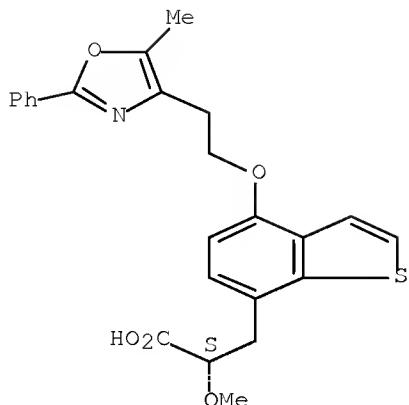
RN 849150-60-3 CAPLUS

CN Benzo[b]thiophene-7-propanoic acid,  
β-hydroxy-α-methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-  
(CA INDEX NAME)



IT 475479-34-6P, (S)-2-Methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid 849150-56-7P, (S)-2-Methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid (S)-phenylethylamine salt 849150-58-9P, (S)-2-Methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid cinchonidine salt 849150-59-0P, (R)-2-Methoxy-3-[4-[2-(5-methyl-2-phenyloxazol-4-yl)ethoxy]benzo[b]thiophen-7-yl]propionic acid 881663-41-8P 881663-49-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of chiral (benzothiophenyl)propionic acid derivative by  
asym. hydrogenation of (benzothiophenyl)propenoic  
acid derivative in presence of chiral ruthenium or rhodium  
phosphine  
complex)  
RN 475479-34-6 CAPLUS  
CN Benzo[b]thiophene-7-propanoic acid,  
α-methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-, (αS)-  
(CA INDEX NAME)

Absolute stereochemistry.



RN 849150-56-7 CAPLUS

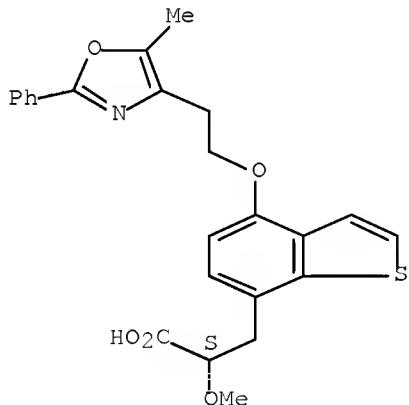
CN Benzo[b]thiophene-7-propanoic acid,  
α-methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-, (αS)-,  
compd. with (αS)-α-methylbenzenemethanamine (1:1) (9CI) (CA  
INDEX NAME)

CM 1

CRN 475479-34-6

CMF C24 H23 N O5 S

Absolute stereochemistry.

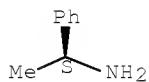


CM 2

CRN 2627-86-3

CMF C8 H11 N

Absolute stereochemistry. Rotation (-).



RN 849150-58-9 CAPLUS

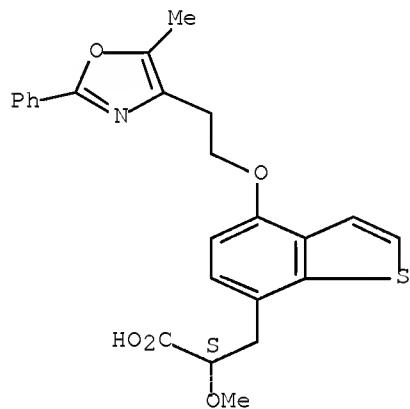
CN Cinchonan-9-ol, (8*a*,9*R*)-, mono[(*aS*)-*α*-methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]benzo[b]thiophene-7-propenoate] (salt)  
(9CI) (CA INDEX NAME)

CM 1

CRN 475479-34-6

CMF C24 H23 N O5 S

Absolute stereochemistry.

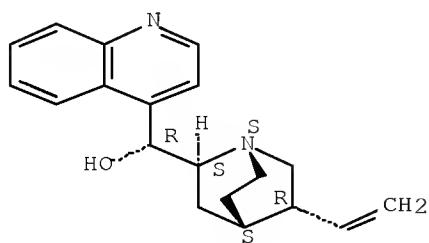


CM 2

CRN 485-71-2

CMF C19 H22 N2 O

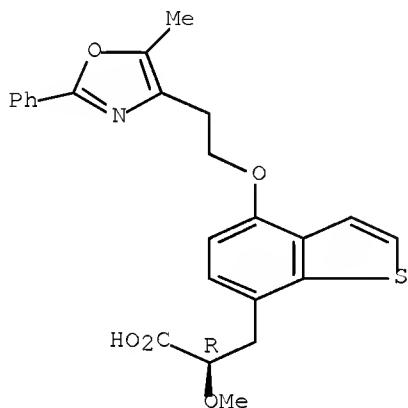
Absolute stereochemistry. Rotation (-).



RN 849150-59-0 CAPLUS

CN Benzo[b]thiophene-7-propanoic acid,  
 $\alpha$ -methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-, ( $\alpha$ R)-  
(CA INDEX NAME)

Absolute stereochemistry.

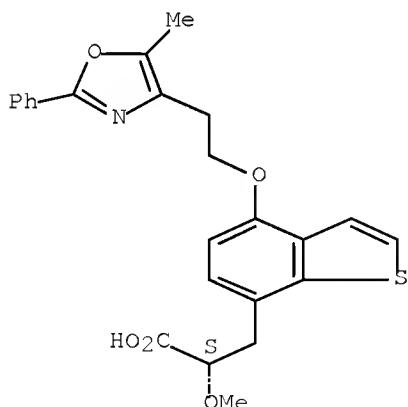


RN 881663-41-8 CAPLUS  
CN Benzo[b]thiophene-7-propanoic acid,  
 $\alpha$ -methoxy-4-[2-(5-methyl-2-phenyl-4-oxazolyl)ethoxy]-, ( $\alpha$ S)-,  
compd. with ( $\alpha$ R)- $\alpha$ -(1S)-1-aminoethyl]benzenemethanol (1:1)  
(9CI) (CA INDEX NAME)

CM 1

CRN 475479-34-6  
CMF C24 H23 N 05 S

Absolute stereochemistry.

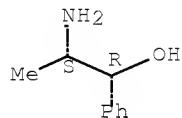


CM 2

CRN 492-41-1

CMF C9 H13 N O

Absolute stereochemistry. Rotation (-).



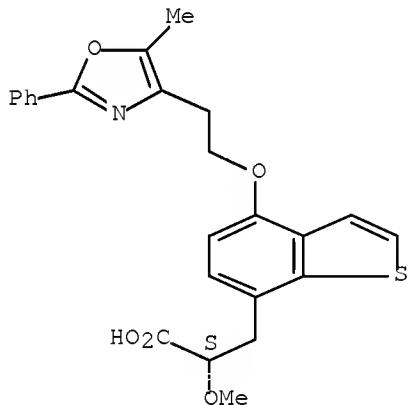
RN 881663-49-6 CAPLUS

CN Cinchonan-9-ol, 6'-methoxy-, (8a,9R)-,  
mono[(aS)-a-methoxy-4-[2-(5-methyl-2-phenyl-4-  
oxazolyl)ethoxy]benzo[b]thiophene-7-propanoate] (salt) (9CI) (CA  
INDEX  
NAME)

CM 1

CRN 475479-34-6  
CMF C24 H23 N O5 S

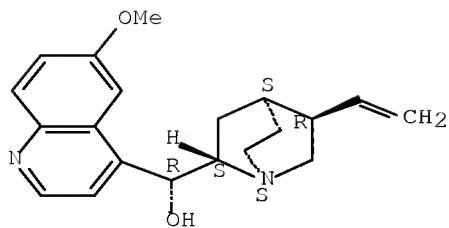
Absolute stereochemistry.



CM 2

CRN 130-95-0  
CMF C20 H24 N2 O2

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L14 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN

AB The present invention discloses an improve process for the preparation of (S)-(-)- and (R)-(+)3-aryl-2-hydroxypropanoic acid derivs. without any resolution involved via copper complexation and selective O-benzylation of D- or L-tyrosine, diazotization of O-benzyl-D- or -L-tyrosine, and alkylation. Thus, 5 kg L-tyrosine, 4 kg KOH, and 4.3 kg copper sulfate pentahydrate were stirred at 60-66° in 10 L H2O, cooled, treated with 20 L DMF and then slowly with 4.2 kg benzyl chloride at 50-60°, cooled to 26-28°, followed by filtration and washing with H2O, to give 8.2 kg O-benzyl-L-tyrosine copper complex. The O-benzyl-L-tyrosine copper complex was added to H2O, treated with 5.8 L 35% concentrated HCl with stirring, followed by filtration, washing with H2O and 10% aqueous NH3, and drying to give 4.3 kg O-benzyl-L-tyrosine (54.5% yield). O-benzyl-L-tyrosine (500 g) was suspended in 6.25 L dioxane, treated with dilute aqueous H2SO4 (540 g, 5.53 mol, 2.5 L H2O) at room temperature, cooled to 0-2° in an ice salt bath, treated with aqueous NaNO2 solution (636 g, 09.22 mol) at 0°, and stirred for 24 h below 30° to give, after workup, (S)-(-)-2-hydroxy-3-(4-benzyloxyphenyl)propanoic acid (I). A mixture of 500 g I, 811 g KOH, and 5 L DMSO was cooled in an ice bath, followed by adding 1.9 kg di-Et sulfate through a dropping funnel at 8-10°, and the resulting mixture was stirred till completion of the reaction to give, after workup, 500 g (S)-(-)-Et 2-ethoxy-3-(4-benzyloxyphenyl)propanoate (98.6% chemical purity and 97.36% enantiomeric purity).

ACCESSION NUMBER: 2005:182608 CAPLUS Full-text

DOCUMENT NUMBER: 142:279950

TITLE: Process for preparing 3-aryl-2-hydroxypropanoic acid

derivatives without resolution

INVENTOR(S): Barot, Vijay Kumar Gajubhai; Kothari, Himanshu Madhusudanbhai; Lohray, Braj Bhushan; Lohray, Vidya

Bhushan

PATENT ASSIGNEE(S): Cadila Healthcare Limited, India

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005019152 20040604 <--	A2	20050303	WO 2004-IN156	
WO 2005019152 CA, CH, GB, GD, KZ, LC, NA, NI, SL, SY, ZM, ZW ZW, AM, DE, DK, RO, SE, MR, NE,	A3 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,			
IN 2003MU00586 20030606 <--	A	20050211	IN 2003-MU586	
IN 220646 AU 2004266204 20040604 <--	A1 A1	20080815 20050303	AU 2004-266204	
CA 2527953 20040604 <--	A1	20050303	CA 2004-2527953	
EP 1636164 20040604 <--	A2	20060322	EP 2004-785914	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR BR 2004011409 20040604 <--				
BR 2004011409 JP 2006527186 20040604 <--	A	20060725 20061130	BR 2004-11409 JP 2006-508489	
MX 2005013216 20051206 <--	A	20060309	MX 2005-13216	
PRIORITY APPLN. INFO.: 20030606 <--			IN 2003-MU586	A
20040604			WO 2004-IN156	W
OTHER SOURCE(S): IT 162919-37-1P, (S)-(-)-2-Hydroxy-3-(4-benzyloxyphenyl)propanoic acid 251454-50-9P, (S)-(-)-Ethyl 2-ethoxy-3-(4-benzyloxyphenyl)propanoate 267228-40-0P,			CASREACT 142:279950; MARPAT 142:279950	

(S)-(-)-Ethyl 2-hydroxy-3-(4-benzyloxyphenyl)propanoate  
 373368-68-4P, (R)-(+)-2-Hydroxy-3-(4-benzyloxyphenyl)propanoic acid  
 847268-21-7P, (R)-(+)-Ethyl 2-ethoxy-3-(4-benzyloxyphenyl)propanoate  
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of chiral 3-aryl-2-hydroxypropanoic acid derivs.

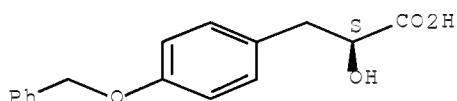
without

resolution via copper complexation and selective O-benzylation of D- or L-tyrosine, diazotization of O-benzyl-D- or -L-tyrosine, and  
 alkylation)

RN 162919-37-1 CAPPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-(phenylmethoxy)-, (aS)-  
 (CA INDEX NAME)

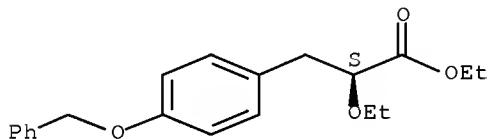
Absolute stereochemistry. Rotation (-).



RN 251454-50-9 CAPPLUS

CN Benzenepropanoic acid,  $\alpha$ -ethoxy-4-(phenylmethoxy)-, ethyl ester,  
 (aS)- (CA INDEX NAME)

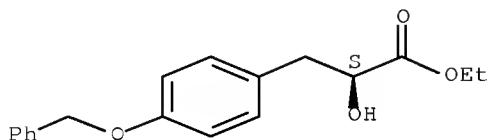
Absolute stereochemistry. Rotation (-).



RN 267228-40-0 CAPPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-(phenylmethoxy)-, ethyl ester,  
 (aS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

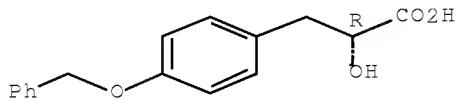


RN 373368-68-4 CAPPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-(phenylmethoxy)-, (aR)-

(CA INDEX NAME)

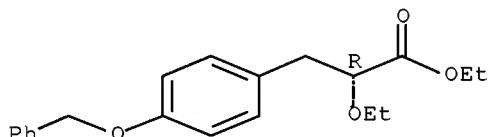
Absolute stereochemistry. Rotation (+).



RN 847268-21-7 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -ethoxy-4-(phenylmethoxy)-, ethyl ester, (R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 222555-06-8P, (S)-(-)-Ethyl

2-ethoxy-3-(4-hydroxyphenyl)propanoate

RL: IMF (Industrial manufacture); SPN (Synthetic preparation);

PREP

(Preparation)

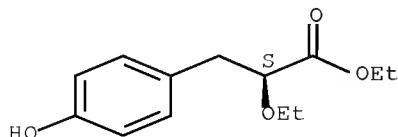
(preparation of chiral 3-aryl-2-hydroxypropanoic acid derivs. without

resolution via copper complexation and selective O-benzylation of D- or L-tyrosine, diazotization of O-benzyl-D- or -L-tyrosine, and alkylation)

RN 222555-06-8 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -ethoxy-4-hydroxy-, ethyl ester, (S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 222555-05-7P, (R)-(+)-Ethyl

2-ethoxy-3-(4-hydroxyphenyl)propanoate

RL: SPN (Synthetic preparation); PREP (Preparation)

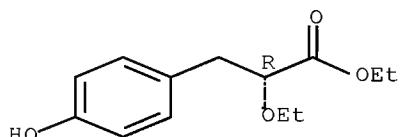
(preparation of chiral 3-aryl-2-hydroxypropanoic acid derivs. without

resolution via copper complexation and selective O-benzylation of D- or L-tyrosine, diazotization of O-benzyl-D- or -L-tyrosine, and alkylation)

RN 222555-05-7 CAPLUS

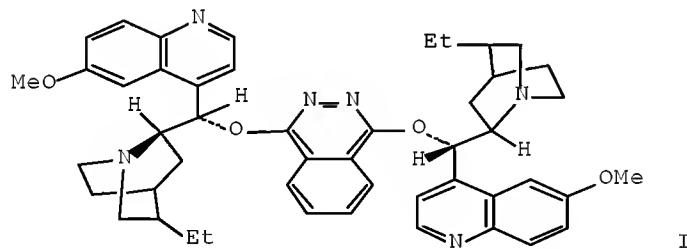
CN Benzenepropanoic acid,  $\alpha$ -ethoxy-4-hydroxy-, ethyl ester, ( $\alpha$ R)-  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE  
THIS RECORD (1 CITINGS)  
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L14 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
GI



AB Osmium-catalyzed methods of addition to an olefin are studied. In the method of *asym.* dihydroxylation of the present invention, an olefin, a chiral ligand, an organic solvent, an aqueous solution, a base, a ferricyanide salt and an osmium-containing compound are combined. The chiral ligand is an alkaloid or alkaloid derivative linked to an organic substituent of at least 300 daltons mol. weight through a planar aromatic spacer group. The organic substituent can be another alkaloid or alkaloid derivative. With the described chiral ligands, *asym.* dihydroxylation of olefins with high yields and enantiomeric excesses are achieved. Thus, dihydroquinidine was treated with 1,4-dichlorophthalazine in DMF containing NaH to give 1,4-bis(9'-O-dihydroquinidyl)phthalazine

(I). To a well stirred solution of I, a solution of potassium ferricyanide, K<sub>2</sub>CO<sub>3</sub>, OsO<sub>4</sub> in toluene was added a Me<sub>3</sub>COH-H<sub>2</sub>O solution of 1-decene, the solution was stirred for 24 h at 0° followed by addition of sodium sulfite to give 83% 1,2-decanediol with 84% ee.

ACCESSION NUMBER: 1993:539588 CAPLUS Full-text  
 DOCUMENT NUMBER: 119:139588  
 ORIGINAL REFERENCE NO.: 119:25059a,25062a  
 TITLE: New ligands for ~~asymmetric~~ dihydroxylation:  
 multiple cinchona alkaloid units attached to a  
 central  
 heterocyclic core  
 INVENTOR(S): Hartung, Jens; Sharpless, K. Barry  
 PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA  
 SOURCE: PCT Int. Appl., 121 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9307142	A1	19930415	WO 1992-US8544	
19921006 <--				
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
US 5260461	A	19931109	US 1991-775683	
19911010 <--				
EP 608307	A1	19940803	EP 1992-921493	
19921006 <--				
EP 608307	B1	20040204		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC,				
NL, SE				
JP 07500323	T	19950112	JP 1993-507170	
19921006 <--				
JP 3982829	B2	20070926		
CA 2120919	C	20030701	CA 1992-2120919	
19921006 <--				
AT 258932	T	20040215	AT 1992-921493	
19921006 <--				
ES 2215989	T3	20041016	ES 1992-921493	
19921006 <--				
PRIORITY APPLN. INFO.:			US 1991-775683	A
19911010 <--			US 1988-142692	B2
19880111 <--			US 1988-159064	A2
19880223 <--			US 1988-250378	A2
19880928 <--			US 1990-512934	A2
19900423 <--			WO 1991-US2778	W
19910423 <--			US 1991-699183	A2

19910513 <--

WO 1992-US8544

W

19921006 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

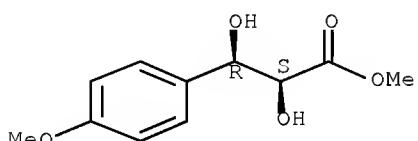
IT 122517-80-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 122517-80-0 CAPLUS

CN Benzenepropanoic acid,  $\alpha, \beta$ -dihydroxy-4-methoxy-, methyl ester,  
( $\alpha$ S,  $\beta$ R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE  
THIS RECORD

(8 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE  
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L14 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN

AB For the purpose of carrying out smoothly enzymic reaction of water-insol. substrates in organic solvents, a new type of immobilized enzyme, a lipid-lipase aggregate, was developed. To prepare various kinds of lipid-lipase aggregates, 27 kinds of dialkyl ether-type phospholipid analogs were newly synthesized and used for the preparation of aggregates with lipase. Thus obtained lipid-lipase aggregates catalyzed the enantioselective hydrolysis of the ( $\pm$ )- $\alpha$ -acyloxy ester 2 much more efficiently than lipase immobilized with synthetic prepolymer (ENTP-4000) in water-saturated iso-Pr ether. The reaction time became much shorter (2 to 3 days for completion as compared with 21 days) and the chemical and optical yields of the reaction products were high.

ACCESSION NUMBER: 1992:486257 CAPLUS Full-text

DOCUMENT NUMBER: 117:86257

ORIGINAL REFERENCE NO.: 117:14967a, 14970a

TITLE: A lipid-lipase aggregate with ether linkage as  
a new

type of immobilized enzyme for  
enantioselective hydrolysis in organic  
solvents

AUTHOR(S): Akita, Hiroyuki; Umezawa, Isao; Matsukura,  
Hiroko;

Oishi, Takeshi

CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274,  
Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1992),

40(2), 318-24  
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 125354-94-1P 125354-96-3P

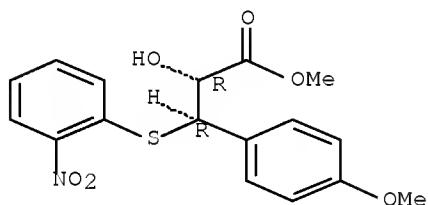
RL: PREP (Preparation)

(preparation of, by lipid-lipase aggregate hydrolysis in  
solvents)

RN 125354-94-1 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, [R-(R\*,R\*)]- (9CI) (CA INDEX  
NAME)

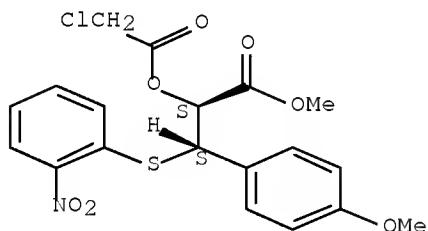
Absolute stereochemistry.



RN 125354-96-3 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -[(chloroacetyl)oxy]-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, [S-(R\*,R\*)]- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.

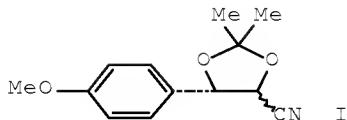


OS.CITING REF COUNT: 7  
THIS RECORD

THERE ARE 7 CAPLUS RECORDS THAT CITE

(7 CITINGS)

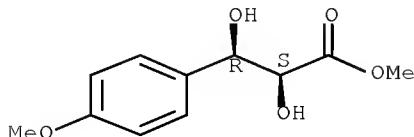
L14 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
GI



AB Cyanohydrins of aromatic aldehydes can be obtained in high optical purity using the Inoue dipeptide catalyst system and converted into enantiomerically and diastereocem. pure threo-3-aryl-2,3-dihydroxypropanoic acid derivs. via a route which involves a base-catalyzed equilibration of the acetonides of the cyano diols. Thus, (R)-(+)-4-MeOC<sub>6</sub>H<sub>4</sub>CH(OH)CN was hydrogenated over Ni and treated sequentially with NaHSO<sub>3</sub>, NaCN, and (MeO)<sub>2</sub>CMe<sub>2</sub> and acid to give cis- and trans-dioxolanes I. Hydrolysis and epimerization of I with KOH in EtOH and then treatment with aqueous acid followed by HCl-MeOH gave the enantiomerically pure threo-4-MeOC<sub>6</sub>H<sub>4</sub>CH(OH)CH(OH)CO<sub>2</sub>Me (II). II was successfully converted into diltiazem.

ACCESSION NUMBER: 1990:406196 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 113:6196  
 ORIGINAL REFERENCE NO.: 113:1203a,1206a  
 TITLE: Synthesis of threo-3-aryl-2,3-dihydroxypropanoic acid derivatives with high optical purity  
 AUTHOR(S): Matthews, Barry R.; Gountzos, Helen; Jackson, W. Roy; Watson, Keith G.  
 CORPORATE SOURCE: Dep. Chem., Monash Univ., Clayton, 3168, Australia  
 SOURCE: Tetrahedron Letters (1989), 30(38), 5157-8  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 113:6196  
 IT 122517-80-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and conversion of, to diltiazem)  
 RN 122517-80-0 CAPLUS  
 CN Benzenepropanoic acid,  $\alpha,\beta$ -dihydroxy-4-methoxy-, methyl ester,  
 ( $\alpha$ S,  $\beta$ R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: 38 THERE ARE 38 CAPLUS RECORDS THAT CITE  
 THIS RECORD (39 CITINGS)

L14 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
AB Vicinal diols are prepared by *asym.* dihydroxylation of olefins in the presence of a chiral ligand, an Os-containing catalyst, an amine oxide, an organic solvent, and H<sub>2</sub>O. OsO<sub>4</sub> was injected into a solution of trans-stilbene, hydroquinidine p-chlorobenzoate, and N-methylmorpholine N-oxide in Me<sub>2</sub>CO and H<sub>2</sub>O at 0-4° with shaking, Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub> added, and the mixture worked up to give 55% (R,R)-PhCH(OH)CH(OH)Ph of 99% enantiomeric excess. Preparation of dihydroquinidine derivs. and their recovery were also given. *Asym.* dihydroxylations of trans-3-hexene, 1-phenylcyclohexene,  $\beta$ -methylstyrene, and Me (E)-4-methoxycinnamate were also given.

ACCESSION NUMBER: 1990:75971 CAPLUS Full-text  
DOCUMENT NUMBER: 112:75971  
ORIGINAL REFERENCE NO.: 112:12975a,12978a  
TITLE: Ligand-accelerated catalytic *asymmetric* dihydroxylation  
INVENTOR(S): Marko, Istvan E.; Sharpless, K. Barry  
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA  
SOURCE: PCT Int. Appl., 66 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 5  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 8906225	A1	19890713	WO 1989-US86	
19890110 <--				
W: JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
US 4871855	A	19891003	US 1988-159068	
19880223 <--				
US 4965364	A	19901023	US 1988-250378	
19880928 <--				
EP 395729	A1	19901107	EP 1989-901900	
19890110 <--				
EP 395729	B1	19950927		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 03503885	T	19910829	JP 1989-501814	
19890110 <--				
JP 3153540	B2	20010409		
EP 658532	A1	19950621	EP 1995-200458	
19890110 <--				
EP 658532	B1	19990407		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 128449	T	19951015	AT 1989-901900	
19890110 <--				
AT 178578	T	19990415	AT 1995-200458	
19890110 <--				
JP 2001192383	A	20010717	JP 2000-335775	
19890110 <--				
CA 1338314	C	19960507	CA 1989-587964	
19890111 <--				
PRIORITY APPLN. INFO.:			US 1988-142692	A

19880111 <--			
19880223 <--	US 1988-159068	A	
19880928 <--	US 1988-250378	A	
19890110 <--	EP 1989-901900	A3	
19890110 <--	JP 1989-501814	A3	
19890110 <--	WO 1989-US86	W	
19890110 <--			

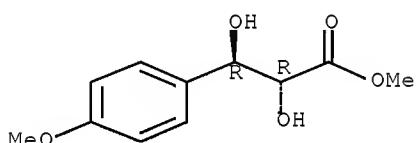
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 IT 125073-64-5P

RL: SPN (Synthetic preparation); PRRP (Preparation)  
 (preparation of)

RN 125073-64-5 CAPLUS

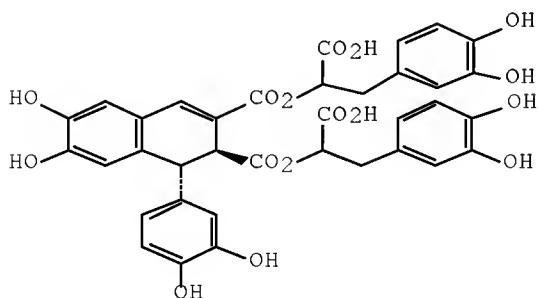
CN Benzenepropanoic acid,  $\alpha, \beta$ -dihydroxy-4-methoxy-, methyl ester,  
 ( $\alpha R, \beta R$ ) - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE  
 THIS  
 RECORD (20 CITINGS)

L14 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
 GI



AB A rosmarinic acid dimer named rabdosiin (I) was isolated from the stem of *R. japonica* (Labiatae). Its structure was determined including the absolute configuration of 4 asym. centers.

ACCESSION NUMBER: 1989:92028 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 110:92028

ORIGINAL REFERENCE NO.: 110:15153a,15156a

TITLE: Rabdosiin, a new rosmarinic acid dimer with a lignan

AUTHOR(S): skeleton, from *Rabdosia japonica*  
Agata, Isao; Hatano, Tsutomu; Nishibe, Sansei;  
Okuda, Takuo

CORPORATE SOURCE: Fac. Pharm. Sci., Higashi Nippon Gakuen Univ.,  
Hokkaido, 061-02, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1988),  
36(8), 3223-5

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 110:92028

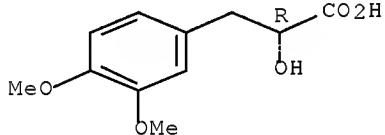
IT 54844-37-0P, (R)-3-(3,4-Dimethoxyphenyl)lactic acid  
119152-55-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 54844-37-0 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-3,4-dimethoxy-, (aR)- (CA INDEX NAME)

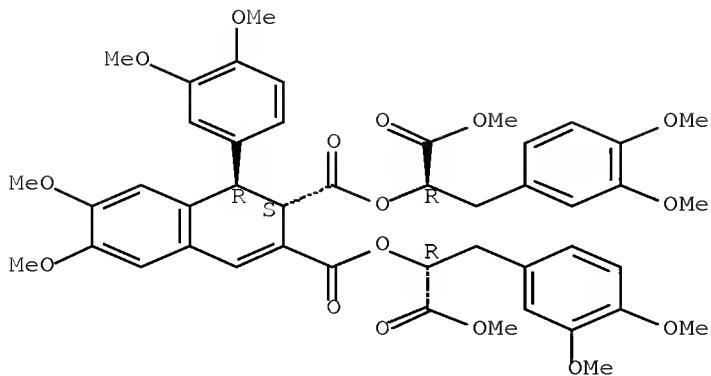
Absolute stereochemistry.



RN 119152-55-5 CAPLUS

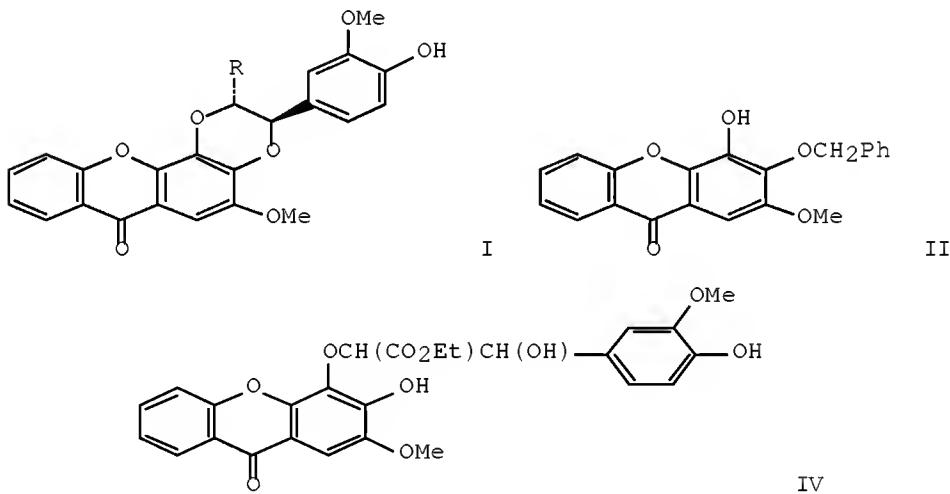
CN 2,3-Naphthalenedicarboxylic acid, 1-(3,4-dimethoxyphenyl)-1,2-dihydro-6,7-dimethoxy-, bis[1-[(3,4-dimethoxyphenyl)methyl]-2-methoxy-2-oxoethyl]ester, [1R-[1 $\alpha$ ,2 $\beta$ (R\*),3(R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE  
THIS RECORD (12 CITINGS)

L14 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
GI



AB Kielcorin (I; R = CH<sub>2</sub>OH) was prepared from methoxyxanthone II and 3,4-MeO(PhCH<sub>2</sub>O)C<sub>6</sub>H<sub>3</sub>COCHBrCO<sub>2</sub>Et (III). Condensation of II and III followed by selective hydrogenation gave a mixture of erythro- and threo-alcs. IV. Ring closure of IV with POCl<sub>3</sub> gave trans-I (R = CO<sub>2</sub>Et). Reduction of I (R = CO<sub>2</sub>Et) with LiAlH<sub>4</sub> gave kielcorin (I; R = CH<sub>2</sub>OH).

ACCESSION NUMBER: 1987:575707 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 107:175707  
 ORIGINAL REFERENCE NO.: 107:28195a, 28198a  
 TITLE: Synthesis of kielcorin  
 AUTHOR(S): Vishwakarma, R. A.; Kapil, R. S.; Popli, S. P.  
 CORPORATE SOURCE: Cent. Drug Res. Inst., Lucknow, 226 001, India

SOURCE:  
Organic

Indian Journal of Chemistry, Section B:

Chemistry Including Medicinal Chemistry (1986  
, 25B(10), 1021-3

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

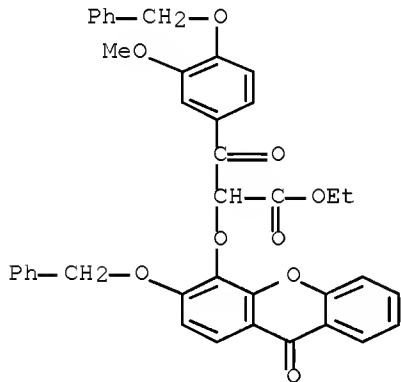
LANGUAGE: English

OTHER SOURCE(S): CASREACT 107:175707

IT 110597-42-7P 110597-48-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
(preparation and catalytic hydrogenation of)

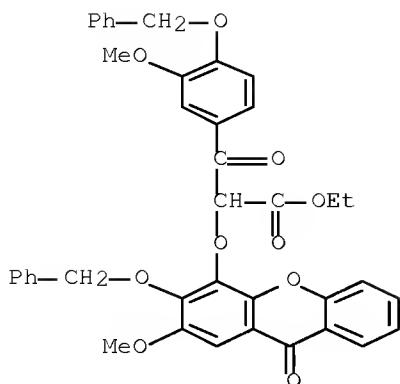
RN 110597-42-7 CAPLUS

CN Benzenepropanoic acid, 3-methoxy- $\beta$ -oxo- $\alpha$ -[ [9-oxo-3-  
(phenylmethoxy)-9H-xanthen-4-yl]oxy]-4-(phenylmethoxy)-, ethyl  
ester (CA  
INDEX NAME)



RN 110597-48-3 CAPLUS

CN Benzenepropanoic acid, 3-methoxy- $\alpha$ -[ [2-methoxy-9-oxo-3-  
(phenylmethoxy)-9H-xanthen-4-yl]oxy]- $\beta$ -oxo-4-(phenylmethoxy)-,  
ethyl  
ester (CA INDEX NAME)



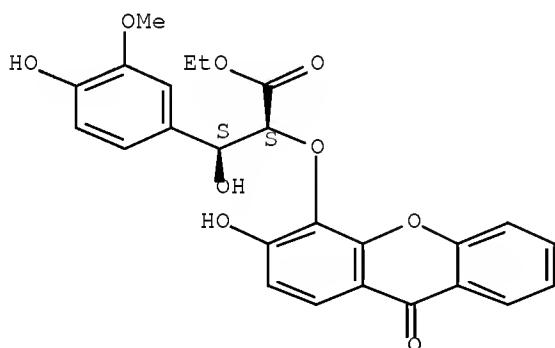
IT 110597-43-8P 110597-49-4P 110597-50-7P  
 110618-96-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclization of, with phosphorus oxychloride)

RN 110597-43-8 CAPLUS

CN Benzenepropanoic acid,  $\beta$ ,4-dihydroxy- $\alpha$ -[(3-hydroxy-9-oxo-9H-xanthen-4-yl)oxy]-3-methoxy-, ethyl ester, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

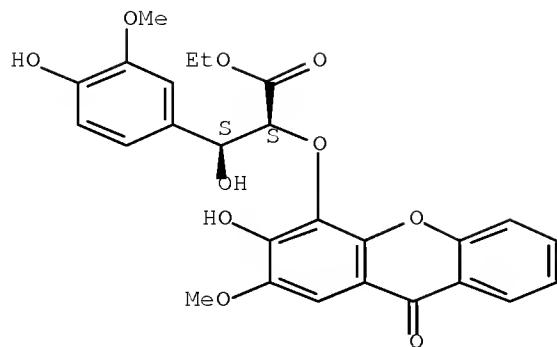
Relative stereochemistry.



RN 110597-49-4 CAPLUS

CN Benzenepropanoic acid,  $\beta$ ,4-dihydroxy- $\alpha$ -[(3-hydroxy-2-methoxy-9-oxo-9H-xanthen-4-yl)oxy]-3-methoxy-, ethyl ester, ( $\alpha$ R, $\beta$ R)-rel- (CA INDEX NAME)

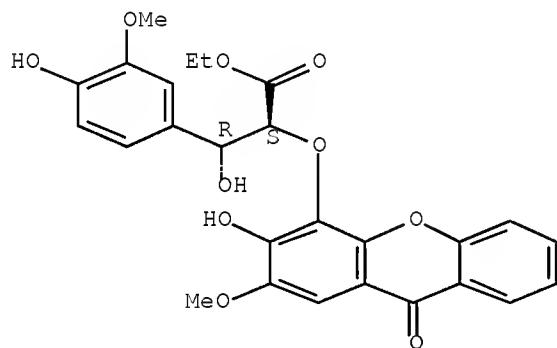
Relative stereochemistry.



RN 110597-50-7 CAPLUS

CN Benzenepropanoic acid,  $\beta$ ,4-dihydroxy- $\alpha$ -[(3-hydroxy-2-methoxy-9-oxo-9H-xanthen-4-yl)oxy]-3-methoxy-, ethyl ester, ( $\alpha$ R, $\beta$ S)-rel- (CA INDEX NAME)

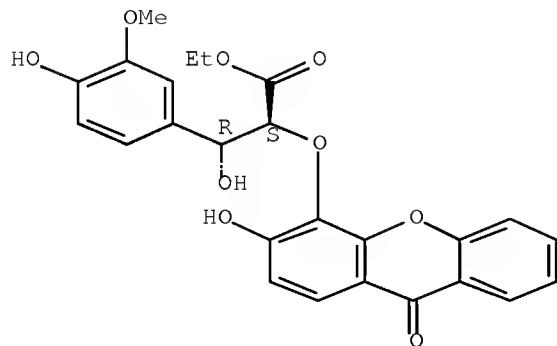
Relative stereochemistry.



RN 110618-96-7 CAPLUS

CN Benzenepropanoic acid,  $\beta$ ,4-dihydroxy- $\alpha$ -[(3-hydroxy-9-oxo-9H-xanthen-4-yl)oxy]-3-methoxy-, ethyl ester, ( $\alpha$ R, $\beta$ S)-rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE  
THIS RECORD  
(2 CITINGS)

L14 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN  
GI



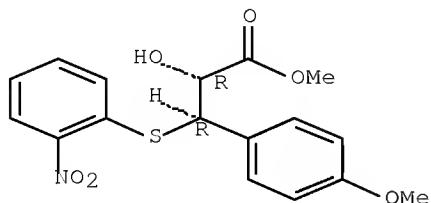
II

AB The reactivity and stereoselectivity of the epoxide-ring cleavage of trans-3-arylglycidate esters with 2-O2NC6H4SH (I) were influenced markedly by the electronic nature of substituents on the aryl ring. Electron-donating substituents increased the reactivity and favored the formation of cis-opening products, whereas electron-withdrawing groups had the opposite effect. The cis ring cleavage of the 4-methoxyphenylglycidate II with I was catalyzed by Sn compds. (e.g., SnCl4) to give threo-4-MeOC6H4CH(SC6H4NO2-2)CH(OH)CO2Me, a key intermediate in the synthesis of diltiazem. The transition state for this reaction involves coordination of Sn to both I and the epoxy O of II.

ACCESSION NUMBER: 1985:45260 CAPLUS Full-text  
DOCUMENT NUMBER: 102:45260  
ORIGINAL REFERENCE NO.: 102:7105a, 7108a  
TITLE: Reaction of 3-phenylglycidic esters. Part 1. Stereoselective opening of the oxirane ring of trans-3-phenylglycidic esters with 2-nitrothiophenols  
AUTHOR(S): and the effect of various catalysts thereon Hashiyama, Tomiki; Inoue, Hirozumi; Konda, Mikihiko; Takeda, Mikio  
CORPORATE SOURCE: Org. Chem. Res. Lab., Tanabe Seiyaku Co., Ltd., Saitama, Japan  
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) ( 1984), (8), 1725-32  
DOCUMENT TYPE: CODEN: JCPRB4; ISSN: 0300-922X  
LANGUAGE: Journal  
OTHER SOURCE(S): English  
IT 84056-03-1P 86603-47-6P  
RN 84056-03-1 CAPLUS  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and acetylation of)

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, ( $\alpha$ R,  $\beta$ R)-rel- (CA INDEX NAME)

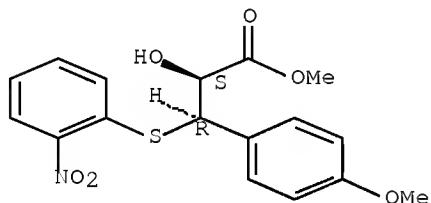
Relative stereochemistry.



RN 86603-47-6 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -hydroxy-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, ( $\alpha$ R,  $\beta$ S)-rel- (CA INDEX NAME)

Relative stereochemistry.



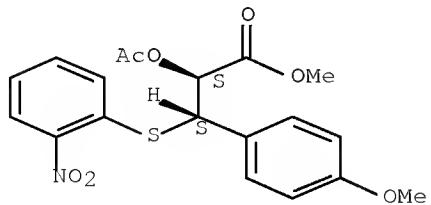
IT 94098-21-2P 94098-22-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 94098-21-2 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -(acetyloxy)-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, ( $R^*, R^*$ )- (9CI) (CA INDEX NAME)

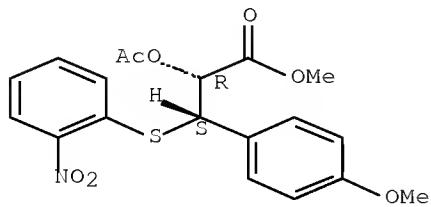
Relative stereochemistry.



RN 94098-22-3 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -(acetyloxy)-4-methoxy- $\beta$ -[(2-nitrophenyl)thio]-, methyl ester, ( $R^*, S^*$ )- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L15 34 S L11 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)  
L16 24 S L12 NOT L14

L16 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

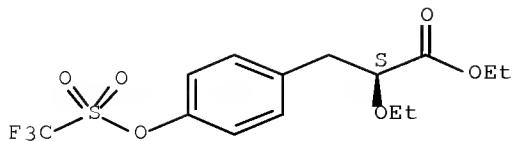
AB The present invention relates to certain phenalkyloxy-Ph derivs. and analogs, to a process for preparing such compds., having the utility in clin. conditions associated with insulin resistance, to methods for their therapeutic use and to pharmaceutical compns. containing them. Thus, the several step preparation of N'-(2,4-difluorophenyl)-N-(2-{4-[(2S)-2-ethoxy-3-hydroxypropyl]phenyl}ethyl)-N-heptylurea starting from Et (2S)-2-ethoxy-3-(4-hydroxyphenyl)propanoate is described. The biol. activity of the compds. prepared is also given.

ACCESSION NUMBER: 2002:927392 CAPLUS Full-text  
DOCUMENT NUMBER: 138:13961  
TITLE: New phenylalkyloxy-phenyl derivatives  
INVENTOR(S): Faegerhag, Jonas; Li, Lanna; Lindstedt, Eva-Lotte  
PATENT ASSIGNEE(S): AstraZeneca AB, Swed.  
SOURCE: PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002096863 20020530 <--	A1	20021205	WO 2002-SE1039	
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 SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
 TD, TG  
 CA 2448645 A1 20021205 CA 2002-2448645  
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 AU 2002256960 A1 20021209 AU 2002-256960  
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 AU 2002256960 B2 20071220  
 NZ 529814 A 20031219 NZ 2002-529814  
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 EP 1404649 A1 20040407 EP 2002-726546  
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 CN 1535261 A 20041006 CN 2002-814947  
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 20031126 <--  
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 HK 1068607 A1 20070504 HK 2005-101037  
 20050207 <--  
 PRIORITY APPLN. INFO.: SE 2001-1978 A  
 20010601 <-- WO 2002-SE1039 W  
 20020530 <--  
 OTHER SOURCE(S): CASREACT 138:13961; MARPAT 138:13961  
 IT 477546-90-0P, Ethyl (2S)-2-ethoxy-3-(4-  
 [(trifluoromethyl)sulfonyloxy]phenyl)propanoate  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction with tert-Bu acrylate)  
 RN 477546-90-0 CAPLUS  
 CN Benzenepropanoic acid,  $\alpha$ -ethoxy-4-  
 [(trifluoromethyl)sulfonyloxy]-,  
 ethyl ester, (aS)- (CA INDEX NAME)

Absolute stereochemistry.



E YOKOZAWA TOHRU?/AU  
SET EXPAND CONTINUOUS

L17 21 S E2  
 L18 1 S L17 AND L3  
 L19 0 S L18 NOT (L14)  
 L20 17 S L17 AND (?HYDROGENATION?)  
 L21 14 S L20 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)  
     E SHIMIZU HIDEO?/AU  
 L22 319 S E13-E14  
 L23 1 S L22 AND L3  
 L24 0 S L23 NOT L14  
 L25 18 S L22 AND (?HYDROGENATION?)  
 L26 5 S L25 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)  
 L27 4 S L26 NOT L21  
     E FUJIWARA TAKAHIRO?/AU  
 L28 135 S E25-E26  
 L29 1 S L28 AND L3  
 L30 0 S L29 NOT L14  
 L31 5 S L28 AND (?HYDROGENATION?)  
 L32 2 S L31 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)  
 L33 1 S L32 NOT (L21 OR L27)  
     E INO YASUNORI//AU  
 L34 11 S E37-E38  
 L35 1 S L34 AND L3  
 L36 0 S L35 NOT L14  
 L37 3 S L34 AND (?HYDROGENATION?)  
 L38 1 S L37 AND (PY<=2003 OR AY<=2003 OR PRY<=2003)  
 L39 0 S L38 NOT (L21 OR L27 OR L33)